

**Review of the RRB's Handling of the Payment Rate Entitlement History System's
Relational Edits, Report No. 01-12, August 9, 2001**

INTRODUCTION

This report presents the results of the Office of Inspector General's (OIG) review of the Railroad Retirement Board's (RRB) handling of relational edits from the Payment Rate Entitlement History (PREH) system.

Background

The RRB provides retirement and survivor benefits for eligible railroad employees, their spouses, widows, and other survivors. During the fiscal year 2000, the RRB paid approximately \$8.3 billion in retirement and survivor benefits to about 724,000 beneficiaries.

The PREH database was designed to be the primary source for accurate and complete RRB benefit data. PREH is an RRB mainframe computer database that supports the agency's retirement and survivor benefit payment process, as well as actuarial projections and valuations. PREH receives data from other RRB automated systems and creates a historical record of retirement and survivor benefit payment, rate and entitlement information. The system stores, updates, and displays award-related and statistical data, and reflects historical activity for entitlement and payment records processed in June 1995 or later.

Events such as benefit terminations, address changes, rate changes or other award activities necessitate changes to the PREH record. Extensive edits are designed into PREH processing to help ensure that data is properly recorded. The purpose of PREH edits is to maintain the value and integrity of the historical record by ensuring that the PREH update system works properly. Errors and inconsistencies in the data passed to the PREH database may also indicate payment errors that directly impact benefit payment accuracy.

There are three types of edit processes within the PREH system's routine daily processing. The system performs these edits on all annuitant records for which an action (update to PREH) is done.

- Range edits check to see that individual fields and records are within valid ranges. The PREH system identifies invalid records and fields. Examiners in the Bureau of Information Services (BIS) and the Office of Programs view and correct the records on-line.
- The second type of edit during daily processing creates referrals for records where potentially serious defects exist in either the activity, the existing record or in the updating of the record for the action. PREH sends these referrals daily to the

WORKLIST system, an on-line inquiry and update system which displays and controls referrals for immediate action by Office of Programs and BIS examiners.

- The third type of edit is the PREH relational edit, which is the subject of this audit. These edits check the consistency of data between fields. For example, relational edits check that the type of annuity is consistent with the annuity beginning date and that the rate payable is consistent with the underlying component amounts. Relational editing is performed when records are viewed on-line or corrected by examiners. Edit rejects, specific records with data errors, are displayed on-line for viewing and correction.

In addition to the system's daily editing of record corrections, BIS performs full range and relational editing of all records in the PREH database at least once a year. The first full edit operation in 1996 produced nearly 734,000 relational-edit rejects. This number had declined to 265,000 rejects with the May 2000 edit run.

A BIS user analyst reviews the edit reject counts to ensure that no significant or unexpected changes in the number of rejects occurred since the last full edit operation. The analyst prioritizes the relational edit rejects and assigns selected records to BIS examiners for correction.

The RRB's first goal in its Strategic Plan for 2000 through 2005 is to provide excellent customer service. The first objective under that goal is to pay benefits accurately. Another objective includes providing relevant, timely, and accurate information. The PREH relational edits support these Strategic Plan objectives.

Objective/Scope

The objective of this audit was to assess the efficiency and effectiveness of the PREH relational edit review and correction process. The audit scope covered relational edits within the PREH system during fiscal year 2000 and rejects resulting from those edits.

To accomplish the audit objective, the OIG performed the following audit steps:

- Reviewed applicable laws, regulations, procedures, and other background material.
- Prepared a risk assessment and preliminary analysis of controls.
- Conducted walkthroughs of procedures and ongoing interviews with BIS and Office of Programs personnel to examine how these offices handle relational edit rejects.
- Prepared sampling plans and reviewed 30 randomly selected relational edit rejects to determine if they are being corrected by BIS and Office of Programs examiners and to evaluate the effectiveness of the underlying edits.
- Reviewed 151 relational edits that check benefit calculations to assess whether the edits are properly prioritized for handling, based on their potential to detect erroneous benefit payments, and to determine whether their rejects should be referred to WORKLIST for immediate handling.

- Reviewed a sample of 35 (17 in the random selection and another 18 judgmentally selected) rejects from the ten relational edits with the highest number of rejects to determine the effectiveness of those edits.
- Reviewed a sample of 30 relational edit rejects that are referred to WORKLIST to determine if they are being corrected.

The fieldwork was performed at the RRB's headquarters in Chicago, Illinois during the period July 2000 through May 2001. This audit, included in the OIG's Fiscal Year 2001 Annual Work Plan, was performed in accordance with generally accepted government auditing standards appropriate for this type of review.

RESULTS OF REVIEW

The review determined that BIS should take steps to improve the efficiency and effectiveness of the PREH relational edit review and correction process. Some PREH relational edits have limited effectiveness. BIS examiners are not reviewing and correcting all PREH relational edit rejects that are likely to detect benefit payment errors. BIS also has not reviewed and corrected the pre-existing edit rejects for eleven relational edits that now cause WORKLIST referrals. In addition, the OIG determined that the PREH system sometimes displays incorrect edit information and PREH on-line help screens are inadequate.

BIS management stated that they have continually reviewed the edit process since 1996, and have made numerous changes to the process, including changes since they ran the May 2000 edits that the OIG reviewed.

Additional details of the OIG's findings are provided in the following sections of this report.

Effectiveness of PREH Relational Edits

BIS uses relational edits that have limited effectiveness in maintaining the value and integrity of PREH historical records. These edits identify data inconsistencies that BIS and Office of Programs managers do not consider important enough for their examiners to correct.

Office of Programs and BIS examiners are responsible for correcting all except certain specified edit rejects in the cases they are handling. They do not correct rejects that they have been instructed to ignore.

Five relational edits caused nearly one-third of the 265,000 rejects in the May 2000 PREH edit file. Examiners in the Office of Programs were instructed to ignore rejects from three of the edits because they did not indicate meaningful data inconsistencies.

Neither Office of Programs nor BIS examiners had corrected the rejects from the other two edits that were in the OIG's sample.

The following table provides details on the five edits, including the identifying number of the edit, a description of the edit, the number of rejects from each edit, and the percentage of the total number of rejects that each edit produced.

Edit	Explanation of What Each Edit Checks	No. of Rejects	%, Total Rejects
5011	Beginning and ending dates of address records	28,372	11
1628	A certain code in military service records	16,672	6
1400	Annuitant's age on the annuity beginning date	13,287	5
5006	Beginning and ending dates of supplemental annuity records	11,737	5
2054	That certain annuitants have relinquished railroad employment rights	8,734	3
Total		78,802	30

Section 11 of the RRB's Automated Data Processing Guidelines requires the agency to protect the integrity of its automated information. BIS implemented PREH relational edits for the purpose of maintaining the value and integrity of PREH historical records. Section 11 also requires that each automated system is effective (it meets organizational needs).

BIS has not performed a comprehensive review, analysis and correction of all PREH relational edits. A comprehensive review would include, but not be limited to, an analysis of whether the edit is working as planned and whether the edit provides meaningful information on data value and integrity. BIS management has advised that, while they continually review the edit process, staff shortages have prevented a planned comprehensive analysis.

The handling of relational edit rejects that have minimal impact on protecting data integrity reduces examiner effectiveness and offsets the limited benefits derived from those edits.

Recommendation

BIS should perform a comprehensive review, analysis and correction of PREH relational edits (Recommendation #1).

Management's Response

BIS agrees with this recommendation and advises that corrective action is an ongoing effort that includes noting inconsistencies, analyzing edits and developing needed corrections.

Priority of Benefit Calculation Edits

BIS examiners do not review and correct all PREH relational-edit rejects that are likely to detect benefit payment errors. This review identified 151 relational edits that were designed to check the accuracy of benefit calculations. Examiners may not review and correct rejects for 111 of these edits because of their low handling priority.

BIS assigns relational-edit rejects to BIS examiners for correction based on the importance of correcting the edits. BIS prioritizes PREH relational-edit rejects for handling as follows:

- Priority 1 These rejects have data with problems that are likely to cause erroneous benefit payments or affect actuarial work. These rejects require more prompt attention.
- Priority 2 These rejects have data with inconsistencies that may cause mechanical errors.
- Priority 3 These rejects have background information with irregularities that do not impact benefit payment and entitlement. BIS considers these rejects least important.

The Railroad Retirement Act requires precise benefit calculations and payments. BIS designed certain relational edits in the PREH system to detect data discrepancies that are likely to cause erroneous benefit payments. BIS managers determined that their examiners should handle rejects from these edits first. Also, BIS created WORKLIST referrals from relational edits that detect potentially serious defects in PREH data. The Retirement Claims Manual requires BIS and Office of Programs examiners to correct WORKLIST referrals on a daily basis.

BIS has not assigned Priority 1 codes to all PREH relational edits that are likely to detect benefit calculation errors. BIS initially prioritized the edits in 1995 and 1996, but has not revised the priority codes to correspond with updated information in the PREH system. BIS managers also indicated that they do not always assign Priority 2 and 3 edit rejects to their examiners for review and correction because of the examiners' heavy workloads.

After reviewing the 151 edits, BIS management advised that the highest potential for benefit payment errors exists when there are benefit calculation errors in the records of annuitants who are actually receiving benefit payments (are in current pay status). They have identified more than 6,000 beneficiary records in current pay status in the May 2000 edit file that may contain benefit calculation errors¹. Many of the edits that detect these errors are Priority 2 and 3 edits.

¹ Also, while reviewing the 151 edits, BIS managers determined that one edit (causing over 8,000 rejects) contained a problem that they had not previously identified. They determined that 90 percent of the rejects caused by this edit reflected an error in the edit process. BIS plans to include correction of this edit in the automated data processing service request that they are currently developing.

By not reviewing all rejects caused by calculation errors in current benefit payments, the RRB may not be correcting all erroneous benefit payments identified from the PREH relational editing process.

Recommendations

BIS should:

- assign a Priority 1 handling code to PREH relational edits that are likely to detect errors in current benefit payments (Recommendation #2) and
- establish, in cooperation with the Office of Programs, WORKLIST referrals for relational edits that are most likely to detect payment errors in current benefits (Recommendation #3).

Management's Response

BIS does not concur with recommendation #2 and replies that priority codes are now insignificant since BIS examiners are assigned all cases in current pay status. BIS agrees with recommendation #3 and advises that this is standard BIS practice

OIG's Response

The OIG believes that BIS should reconsider its decision to reject recommendation #2. The priority handling codes that BIS has been using for PREH relational edits are effective for targeting examiner resources to the most critical areas. Some edits do not require the prompt attention that others require. For example, BIS management has stated that some PREH relational edits are useful as monitoring tools although they reveal rather trivial record inconsistencies that do not need to be corrected.

Implementing this recommendation will ensure that examiners work on cases that are likely to contain benefit payment errors rather than cases with trivial record inconsistencies. Efficient use of examiners is especially important since BIS has reported staffing shortages in recent years.

Pre-Existing Edit Rejects Now Causing WORKLIST Referrals

BIS has not reviewed and corrected the pre-existing rejects for eleven relational edits that now cause WORKLIST referrals. These eleven relational edits had 2,258 rejects as of May 2000.

In September 2000, BIS added fourteen relational edits to the list of three edits that cause WORKLIST referrals. Six edits were added because of the OIG Audit Report 99-17, Review of Supplemental Annuities. BIS and the Office of Programs are working on all pre-existing rejects for these six relational edits identified in the audit.

The Retirement Claims Manual states that WORKLIST referrals are indications of errors in the database that require examiner attention and are considered important enough to be worked on a daily basis. BIS management advised that it was an oversight that BIS did not assign the 2,258 pre-existing rejects for the 11 relational edits for correction.

If these edit rejects are not reviewed and corrected, known erroneous data will remain in the PREH database.

Recommendations

BIS should:

- review and correct, or forward to the Office of Programs for review, all pre-existing rejects for the 11 PREH relational edits that now result in WORKLIST referrals (Recommendation #4).
- implement a policy to review all rejects for all relational edits that BIS changes to WORKLIST referrals (Recommendation #5).

Management's Response

BIS agrees with both recommendations. Concerning recommendation #4, they have forwarded these additional cases to Office of Programs for review. For recommendation #5, BIS has sent a reminder notice to staff to review all rejects for WORKLIST referral cases.

PREH System Display of Edit Information

The PREH system displays incorrect relational edit information when it is accessed using the beneficiary Social Security Number (SSN). RRB staff can access the PREH system during a computer session by entering either the RRB Claim Number, beneficiary Social Security Claim Number, or beneficiary SSN. However, when accessing PREH using the beneficiary SSN, the PREH system will show no relational edit rejects if this is the first record accessed in a session. If a record showing relational edit data has been accessed previously in a session and a second record is accessed using the Beneficiary SSN, the PREH system displays the edit information for the previous record as if it is part of the second record.

The Retirement Claims Manual states that a count of the relational edit rejects found for a given annuitant/record is displayed at the bottom of the Records Menu screen of PREH and that the Relational Edit Results screen shows the edit numbers.

The PREH table used to display the relational edit data is not cleared when a new record is accessed using the beneficiary SSN. Also, the PREH routine used to call the relational edit data does not run. In addition, BIS management advised that they did not notice this problem earlier because RRB examiners usually obtain PREH access by entering the RRB claim number.

The display of incorrect relational edit information can lead to a case being handled incorrectly or incompletely.

Recommendation

BIS should correct the PREH system so that relational edit data is correctly displayed when a record is accessed using the beneficiary Social Security Number (Recommendation #6).

Management's Response

BIS concurs with the recommendation and has corrected the PREH system to display correct information.

PREH On-line Help Screens

PREH on-line help screens do not provide adequate detailed information for each of the more than 800 fields on PREH data screens. During audit testing, the audit team was unable to locate meaningful explanations for some data fields and the codes in those fields. The on-line help screens were not helpful; the on-line Retirement Claims Manual did not contain screen explanations; and BIS did not have written screen explanations.

In Audit Report No. 99-01, Accuracy of PREH Data and Controls over PREH Referrals, the OIG recommended that BIS develop an action plan to review the PREH on-line help screens for accuracy and completeness and make necessary changes. BIS developed the recommended action plan, which called for new on-line help screens to be put into production by December 31, 2000.

The Retirement Claims Manual requires on-line help screens to provide detailed information for each PREH screen and for each PREH field. Section 11 of the RRB's Automated Data Processing Guidelines also requires system documentation to be sufficient to ensure effective operation by users. Finally, the BIS action plan to implement the OIG's previous audit recommendation stated that the new on-line help screens would provide the definitions of data fields in plain language, exact source of data in fields, and uses of the fields in generic terms.

BIS has not implemented its action plan to review and correct PREH on-line help screens. The employee who was working on the project left the agency, and BIS discontinued the project.

Without adequate detailed explanations for each PREH data screen, Office of Programs examiners may not be able to verify benefit entitlement and payment information. In addition, Office of Programs and BIS examiners may not be able to accurately correct PREH edit rejects.

Recommendation

BIS should implement its action plan to review and correct PREH on-line help screens (Recommendation #7).

Management's Response

BIS disagrees with the recommendation. BIS advises that recent operational changes allow the RRB field service personnel access to additional PREH screens that provide enhanced on-line definition of PREH codes and therefore, it is unnecessary to correct most PREH on-line help screens.

OIG Response

The OIG strongly believes that BIS should enhance the PREH on-line help screens as proposed in its action plan. While BIS has recently made improvements to the on-line help screens, some on-line help screens still contain only data format information and no definitions. The remaining inadequate help screens are an obstacle for RRB users. This obstacle is most significant to field service personnel who use PREH screens to provide information to their customers. It is imperative that those employees have immediate access to useful and adequate on-line help for all PREH screens.